

AJ91-1

The geology of the hole consists of listwanite, serpentinite, diorite, and related dykes. The 'thick' listwanite at 3.35 to 48.28 metres is the thrust^{fault}. Other zones of listwanite are found at depth but are thin. The listwanite is the quartz, carbonate (Fe dolomite: ankerite), plus or minus maraposite alteration of the serpentinite package. Talc is believed to be a result of serpentinitization of the original ultramafic (pyroxenite), and therefore probably is not a member of the listwanite alteration assemblage.

Diorite forms as dykes in the listwanite, serpentinite assemblage, as does other intrusive rocks. The dykes may intrude along planes of weaknesses as reflected by the intrusion along the upper listwanite/thrust contact.

AJ91-2

The geology of the hole consists mainly of diorite with wedges of serpentinite. A small zone of listwanite near the top of the hole is only 1 metre thick.

AJ91-3

The geology of the hole is serpentinite, feldspar porphyry dyke, diorite, and very minor listwanite. The serpentinite is generally massive to weakly foliated, dark green, and moderately magnetic. The feldspar porphyry dyke is massive, brownish green, with 10 to 15% subhedral to euhedral feldspar phenocrysts. The feldspars are weakly chloritic altered near its lower contact. The diorite is massive, grey, fine grained, and is weakly carbonate altered. The two zones of listwanite are thin, about 2 metres in thickness each, with their lower contacts being defined by dykes. The dykes seem to intrude along planes of weaknesses.

AJ91-4

The geology of the hole is serpentinite, listwanite, and diorite. The serpentinite is massive, dark green, and moderately magnetic. The main listwanite zone, the thrust fault, extends from 59 to 79.5 metres, and is cut by several dykes. Minor listwanite zones occur up to 5 metres thick within the serpentinite units. Two smaller zones are seen bounding the upper and lower contact of a dyke(s?) at 121.3 metres and 137 metres (could this have been a continuous zone of listwanite that hosts the dyke(s?)). The diorite is massive, grey, and fine grained.

AJ91-5

The geology of the hole is listwanite, serpentinite, and diorite. The listwanite occurs as two zones. The 'upper' listwanite is 3 to 23 metres down hole and the 'lower' listwanite is 44 to 62 metres down hole. The two zones are separated by serpentinite and diorite and may be lumped together as one larger unit? The listwanite reflects the thrust zone. The serpentinite is massive to brecciated and dark green. The diorite is massive, grey, and fine grained.

AJ91-6

The geology of the hole is diorite, listwanite, serpentinite, and sediments. The diorite is massive, fine grained and grey. At 22.3 to 37.6m, the diorite is phyllic altered. Overlapping sheeted veins/fractures phyllic alteration envelopes replace the original intrusive texture resulting in a fine grained, veined, yellowish brown coloured rock. The diorite becomes less sericitic altered until 41.3 to 50.3 metres, the diorite is weakly chloritic altered and brecciated. A fault zone exists from 37.6 to 50.3 metres. This fault zone is younger than the underlying thrust (50.3 to 65.78 metres) and may be a reactivation of the older fault. The listwanite alteration reflects the thrust fault. The serpentinite is massive, fine grained, moderately magnetic, and dark green. The sediments may belong to the Knob Hill Group and were not encountered on surface. The sediments are fine grained, hornfelsed, with zones of silicification. Banding/foliation may be relict bedding.

AJ91-6

Diorite
Listwanite
Serpentinite
Sediments (Knob Hill?)

Dior. 3.05 - 50.30

Phyllic alt: 22.3 - 37.6m
(sheeted veins w alt. envelopes)

Recent fault: ~~37.6 - 41.3m~~
41.3 - 50.3

(reactivation of along, or
plane of weakness along,
top of thrust fault)

List 50.30 - 65.8m
→ Thrust

Seds Hornfelsed. (Biot)
Small Scale Folds (Soft
Sed Deformation??)

LIST BOTTOM STRONG DEFIN
SERP
DIOR (D.K.)
SERP
F/E
LIST
SERP - w list zones
DYKE (M)
SERP
DIOR.

AJ91-1

The geology of the hole ~~was~~^{is} listwanite, and serpentinite, alterations of ^{(an ultramafic (pyroxenite))} ~~pyroxenite~~, and diorite. The diorite occurs as dykes, crosscutting the serp.

The listwanite zones reflect faulting with the major thrust zone being the top listwanite package. The lower listwanite zones may be imbricated small wedges.

→ The package varies in colour and is composed of silicification and Fe dolomite alt minerals

AJ91-1

Geology: Listwanite
Serpentinite
Diorite

Listwanite, Def'n Zone → Thrust
Dykes

Thrust Zone at top of hole, 3.35 - 48.28m
Listwanite at depth in hole not part
of major zone.
Dyke at top of hole intruding along
top of thrust (plane of weakness).

AJ91-2

Geology:

Diorite
Serpentine
v. minor listwanite

Serpentine as wedges in the diorite

AJ91-3

Serpentine - mainly
Feldspar Porphyry Dyke
Diorite
v. minor listwanite

dior + Fp → dykes

Fp intruding along list (plane
of weakness).

AJ91-4

Serpentinite
Dior (Dykes)
Listwanite

Dykes

(+Serp) List intruded by several dykes

Minor list wedges in serp (thin wedges)

List 59.01-79.66 m → Thrust

AJ91-5

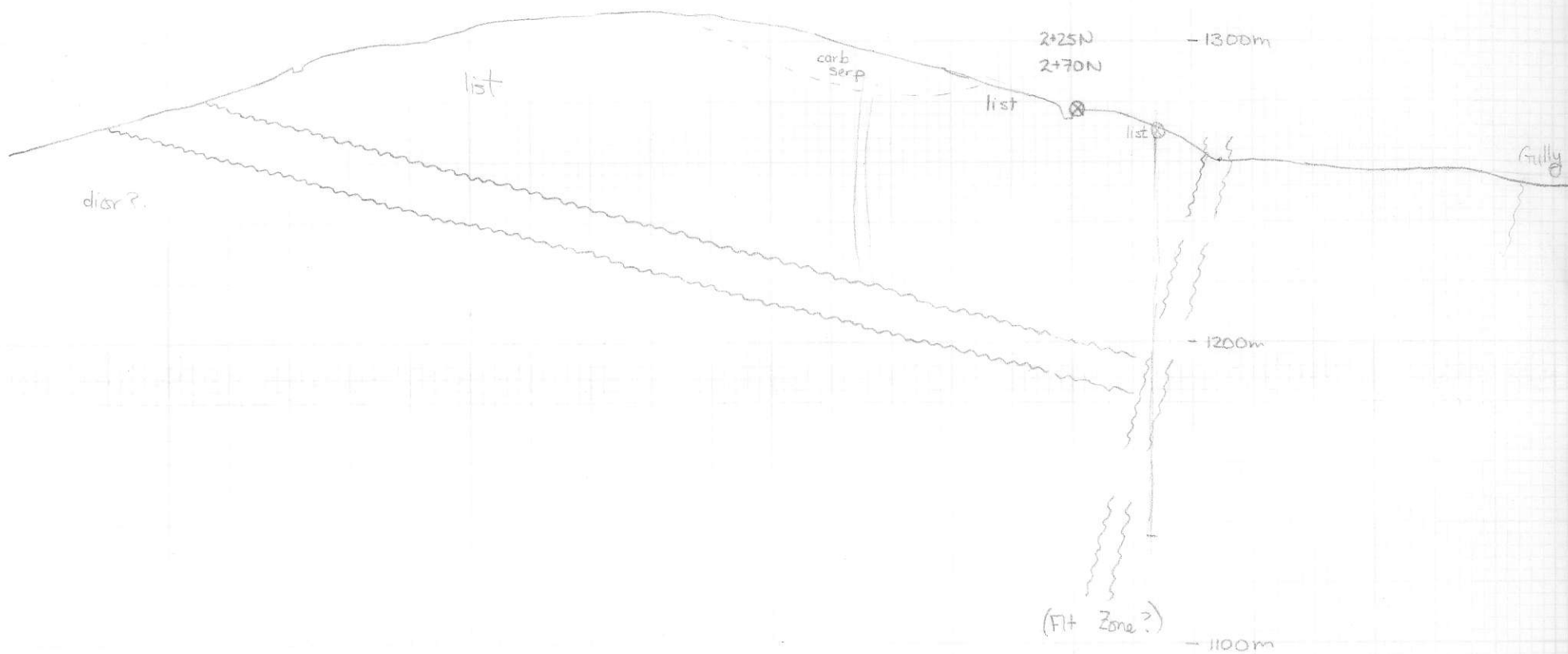
Serpentinite
Listwanite
Diorite

Dykes

List. at top of hole → thrust
(3.05-61.71m)

SW

NE



L

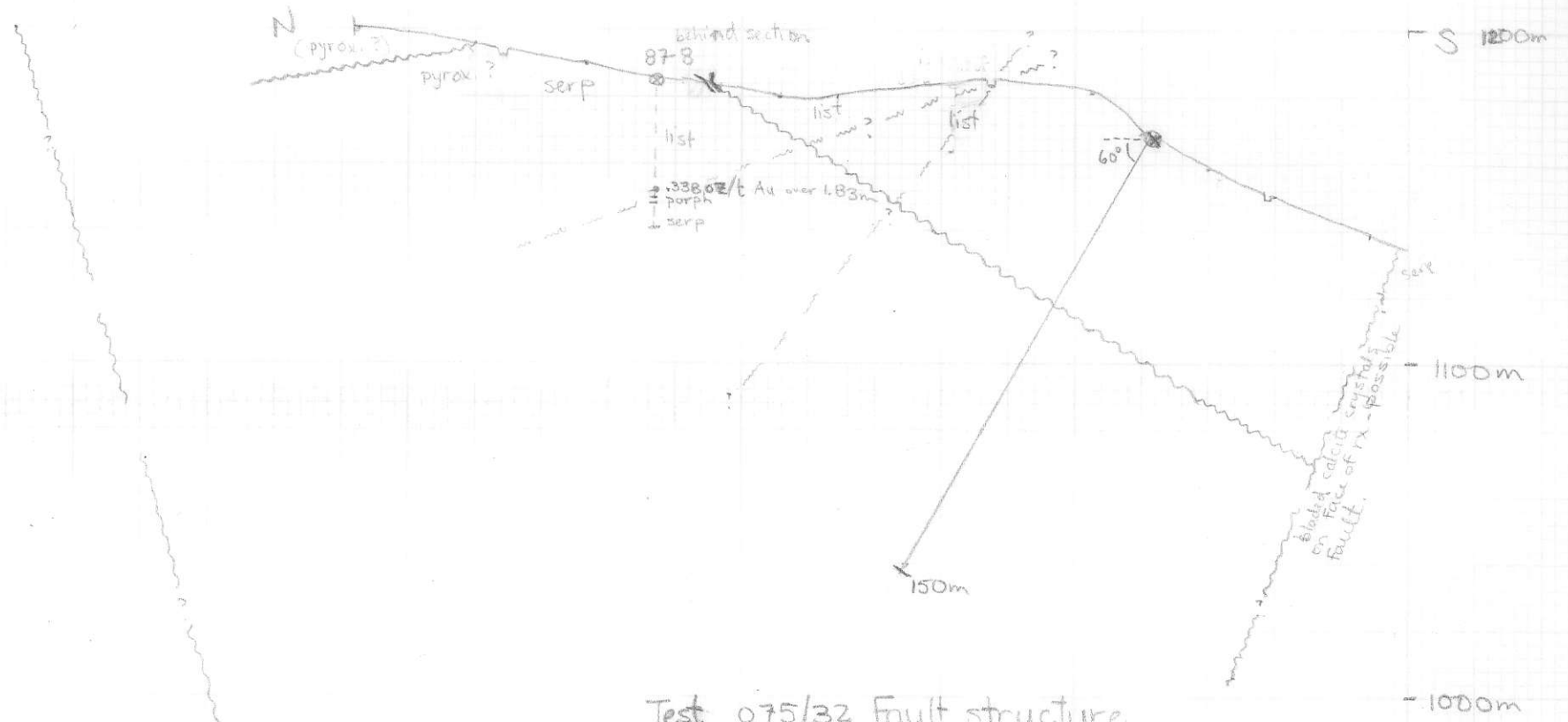
f

Dior

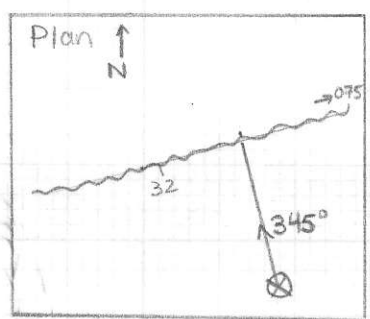


2+65E, 0+80S

Az 345°



Test 075/32 Fault structure
1:2000



2+25E 1+45S
AZ 345°

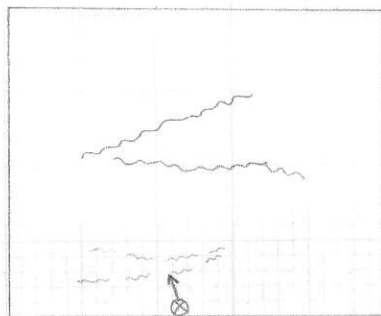
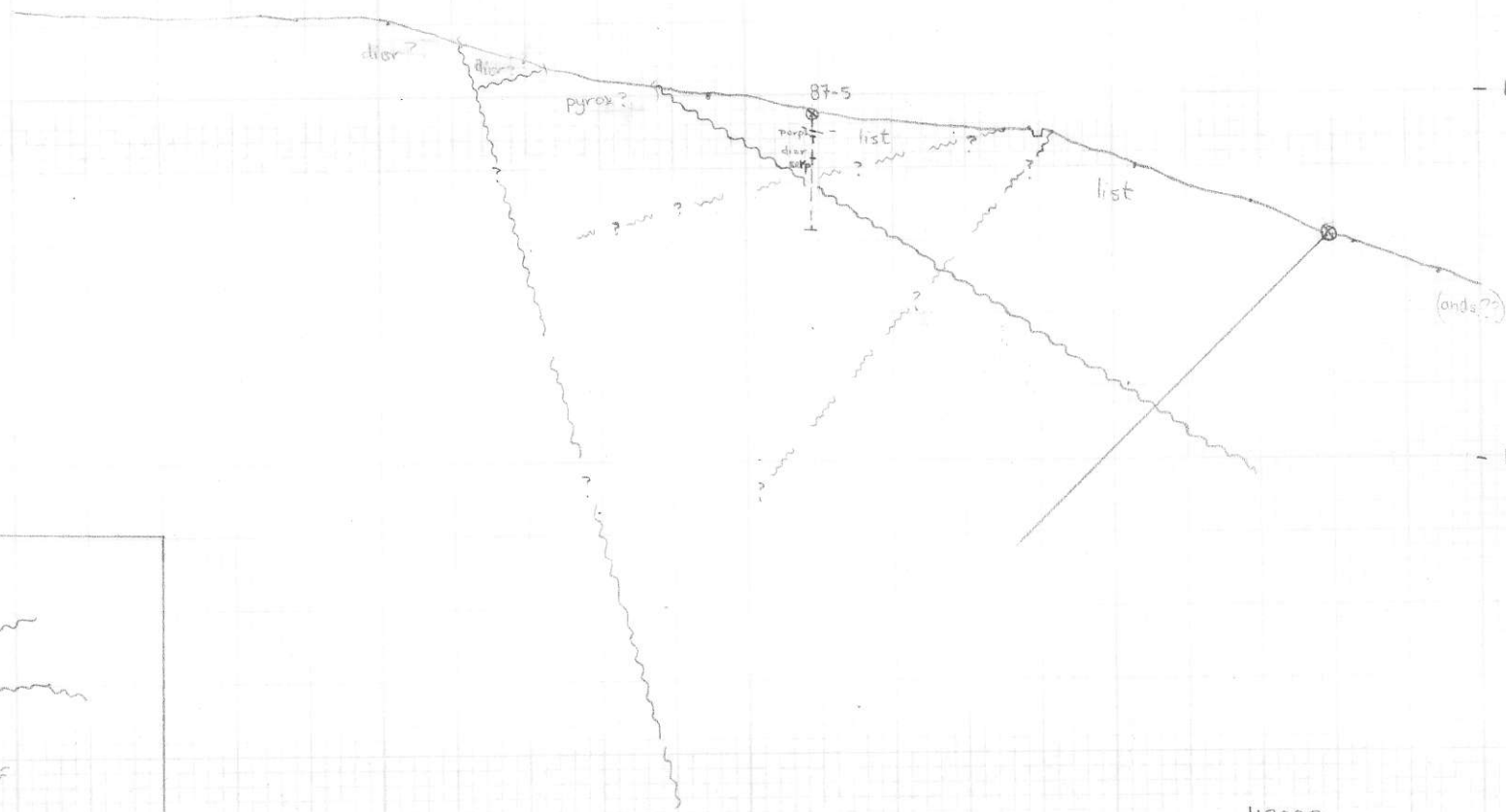
N

S

- 1300

- 1200

- 1100

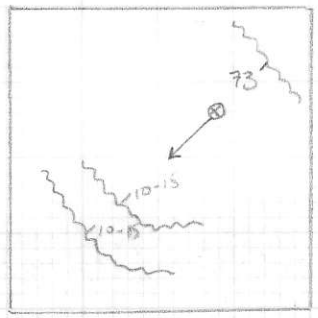
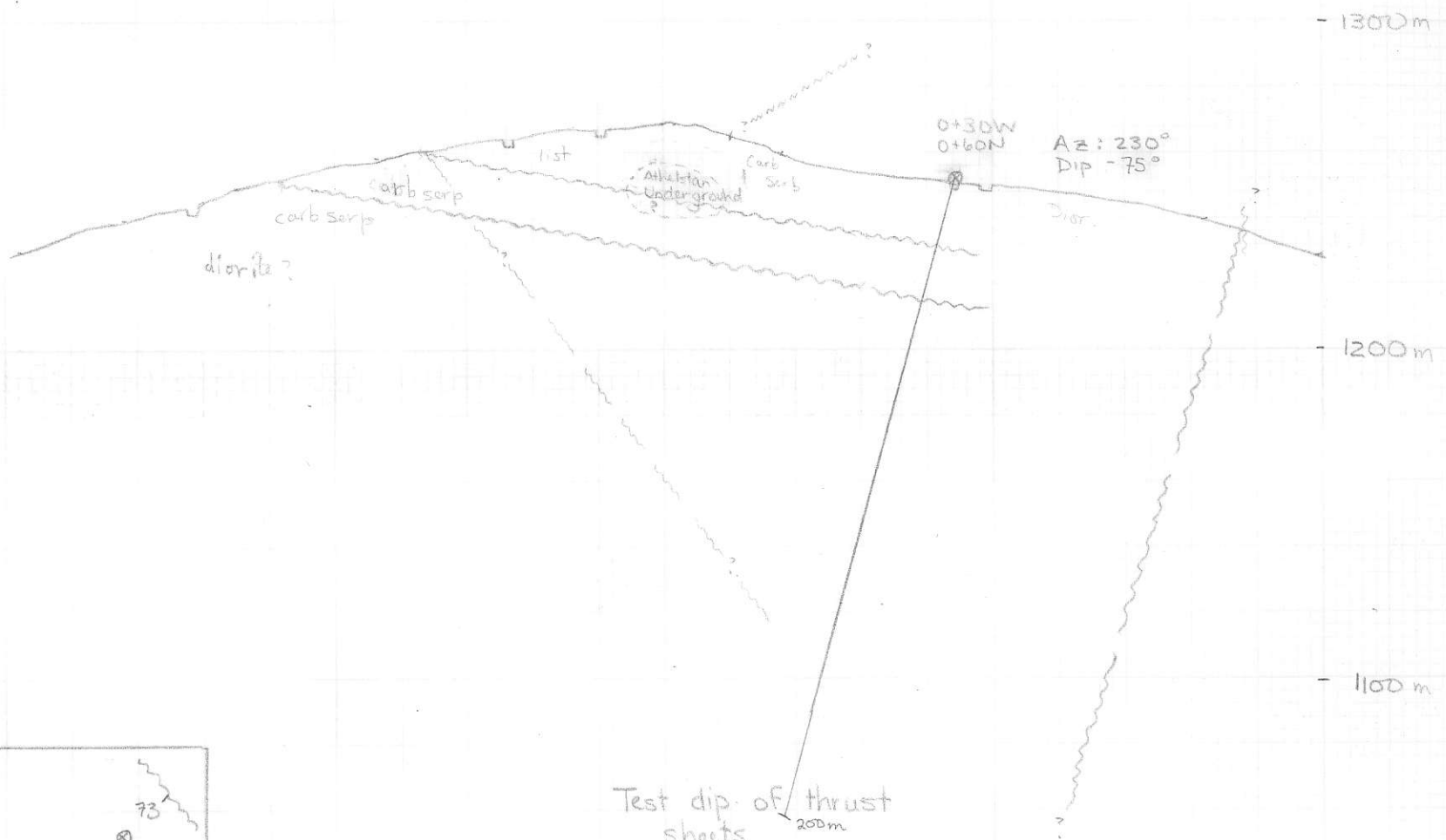


1:2000

PI

SW

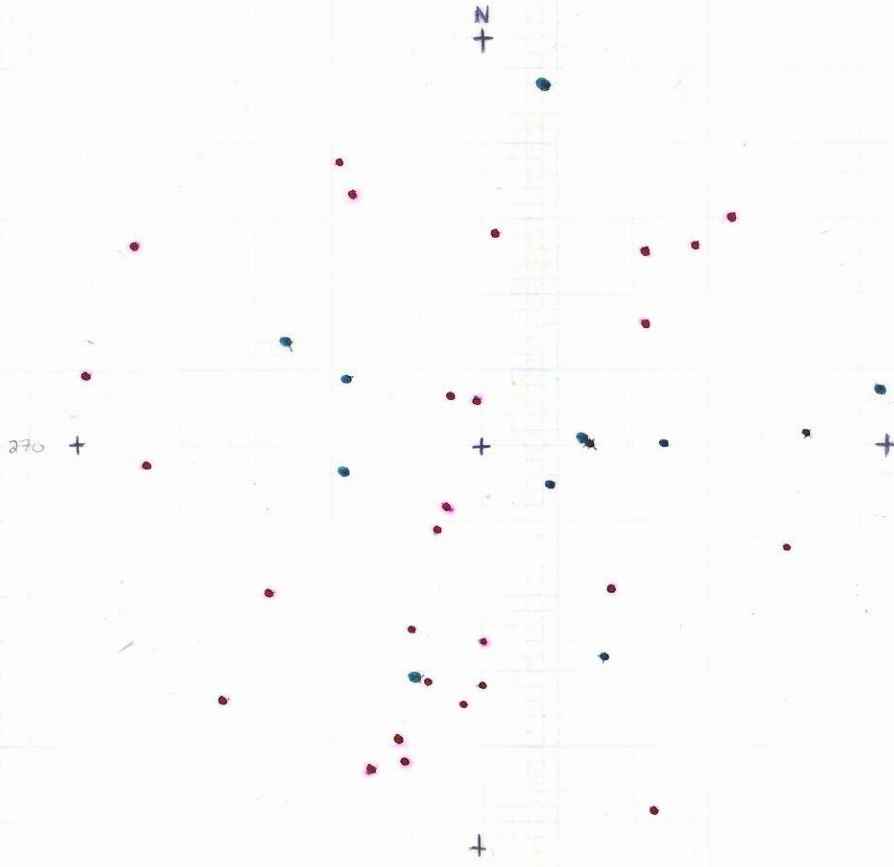
NE



Test dip of thrust sheets
 200m
 (+ possibly test steeper fault?)

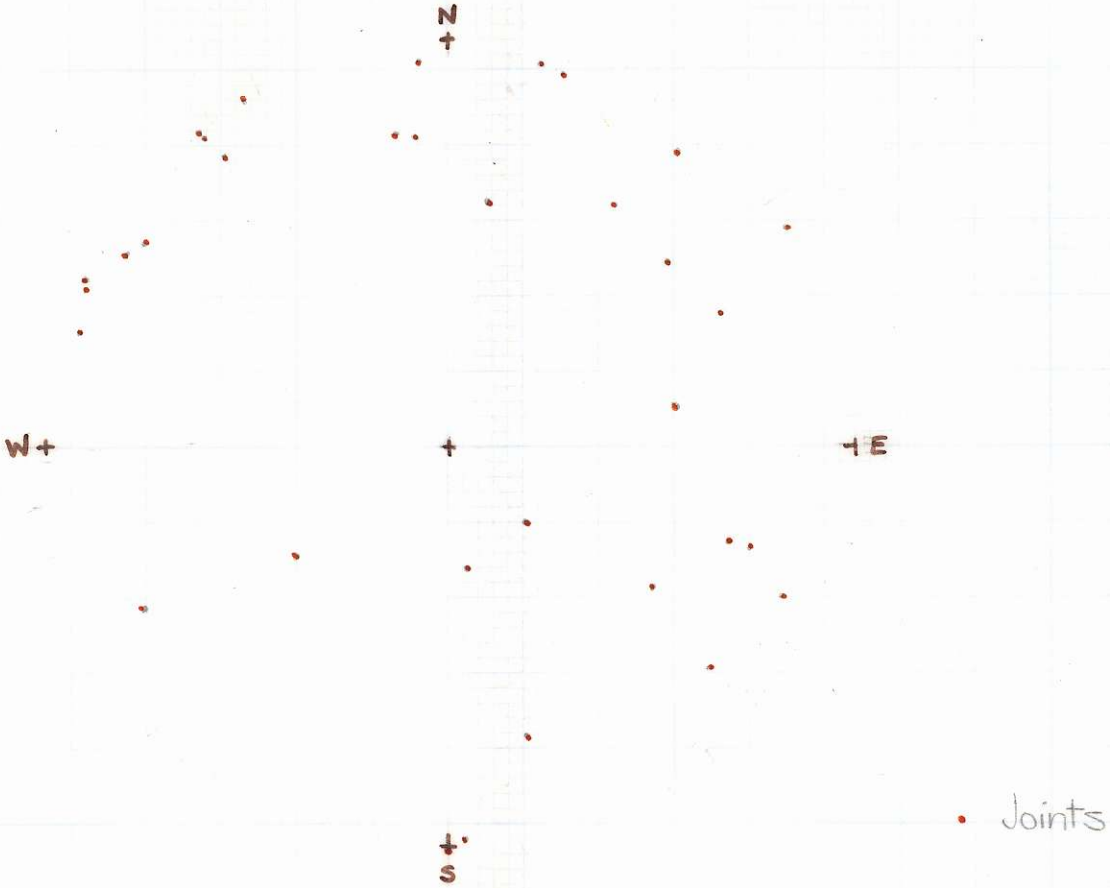
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Faults



Poles to Planes

- Faults
- Foliations



1290
- 1280
- 1270
- 1260
- 1250
+ 1240
- 1230
- 1220
- 1210
- 1200
1190 1187

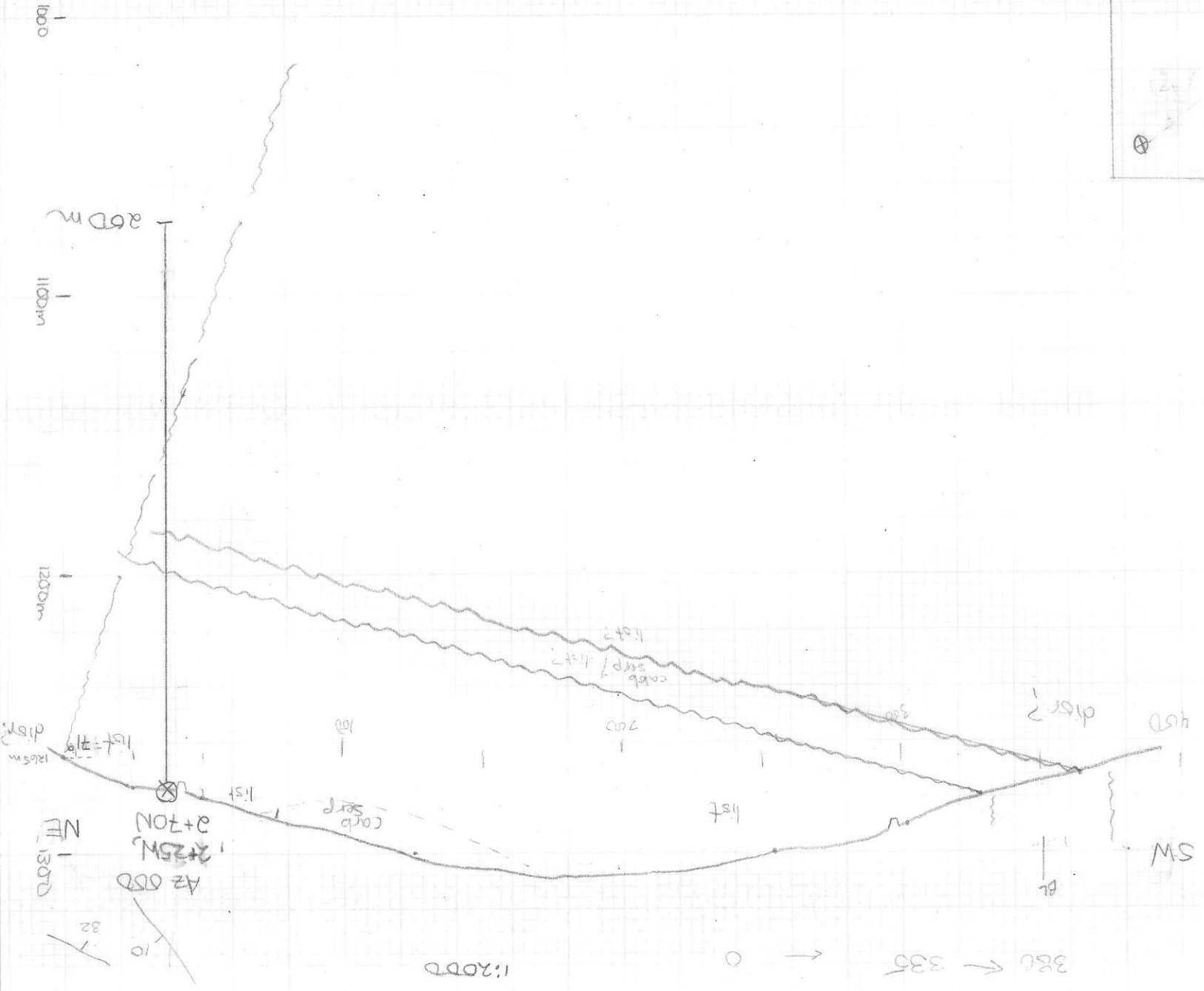
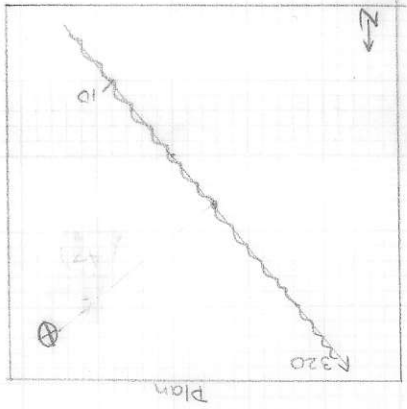
18



1270

1250

120



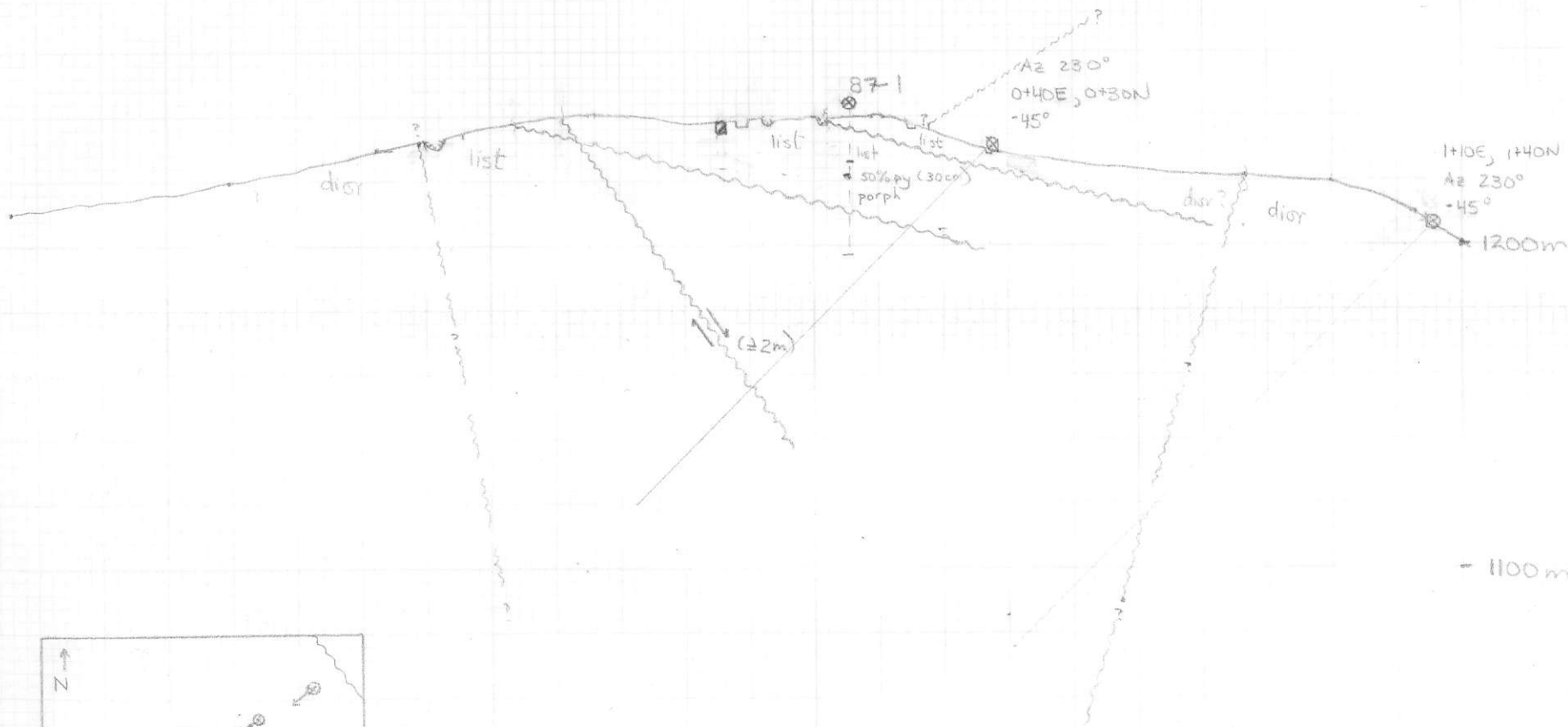
88°

Viewing NW

SW

NE

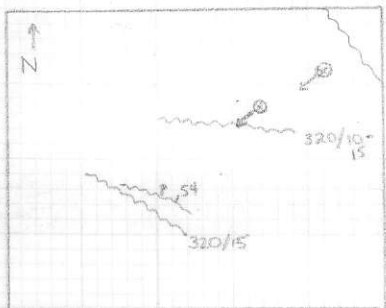
- 1300m



+10E, +40N
Az 230°
-45°

1200m

- 1100m



1:2000